

AMENDMENTS TO THE CLAIMS

Claims 1-11 (Cancelled).

11. (Currently Amended) A method for screening for a modulator of Alzheimer's disease, wherein said modulator modulates

(i) ~~at least one~~ the protein molecule ~~selected from the group consisting of SEQ ID NO:1 and of SEQ ID NO:2~~, said protein molecule being a translation product of the gene coding for a cytosolic sulfotransferase family 4A member 1,

said method comprising: (a) contacting an isolated cell over-expressing a SULT4A1 protein with a test compound; (b) measuring the activity and/or level of one or more substances recited in (i) (c) measuring the activity and/or level of one or more substances recited in (i) in a control cell not contacted with said test compound; and (d) comparing the levels and/or activities of the substance in the cells of step (b) and (c), wherein an alteration in the activity and/or level of substances in the contacted cells indicates that the test compound is a modulator of said Alzheimer's disease.

12. (Currently Amended) A method of screening for a modulator of Alzheimer's disease, wherein said modulator modulates

(i) ~~at least one~~ the protein molecule ~~selected from the group consisting of SEQ ID NO:1 and of SEQ ID NO:2~~, said protein molecule being a translation product of the gene coding for a cytosolic sulfotransferase family 4A member 1,

said method comprising: (a) administering a test compound to a SULT4A1 transgenic or gene disrupted mouse or *Drosophila* which is predisposed to developing or has already developed symptoms of Alzheimer's disease in respect of the substances recited in (i), wherein said animal and a matched control animal are altered to expresses the gene coding for a cytosolic sulfotransferase family 4A member 1, under the control of a transcriptional control element which is not the native cytosolic sulfotransferase family 4A member 1 gene transcriptional control element; (b) measuring the activity and/or level of one or more substances recited in (i); (c) measuring the activity and/or

level of one or more substances recited in (i) in the matched control animal which is predisposed to developing or has already developed symptoms of Alzheimer's disease in respect to the substances recited in (i) and to which animal no such test compound has been administered; (d) comparing the activity and/or level of the substance in the animals of step (b) and (c), wherein an alteration in the activity and/or level of substances in the test animal indicates that the test compound is a modulator of said Alzheimer's disease.

Claims 13-30 (Cancelled).